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# CHAPTER 5

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## PATTERNS AND TRENDS IN PHYSICAL ACTIVITY

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## CHAPTER 5

# PATTERNS AND TRENDS IN PHYSICAL ACTIVITY

### Introduction

This chapter documents patterns and trends of reported leisure-time physical activity of adults and adolescents in the United States and compares the findings to the goals set by *Healthy People 2000* (U.S. Department of Health and Human Services [USDHHS] 1990; see Chapter 2, Appendix A, for the 1995 revised *Healthy People 2000* objectives for physical activity and fitness). The information presented here is based on cross-sectional data from national- and state-based surveillance systems, sponsored by the Centers for Disease Control and Prevention (CDC), that track health behaviors including leisure-time physical activity. Although self-reported survey information about physical activity is likely to contain errors of overreporting, there is no other feasible way to estimate physical activity patterns of a population. Moreover, there is no widely accepted “gold standard” methodology for measuring physical activity (see Chapter 2).

Occupational and most domestic physical activities are not presented because such information is not available. Most national goals address leisure-time rather than occupational physical activity because people have more personal control over how they spend their leisure time and because most people do not have jobs that require regular physical exertion. Nonetheless, measuring only leisure-time physical activity leads to an underestimate of total physical activity, especially for those people with physically demanding jobs.

Five surveys provided data on physical activity for this review: 1) the National Health Interview Survey (NHIS), which included questions on physical activity among adults in 1985, 1990, and 1991; 2) the Behavioral Risk Factor Surveillance System (BRFSS), a state-based survey of adults that was conducted monthly by state health departments, in

collaboration with the CDC, and included questions on physical activity from 1986 through 1992 and in 1994; 3) the Third National Health and Nutrition Examination Survey (NHANES III) of U.S. adults from 1988 through 1994 (data from Phase I, 1988–1991, were available for presentation in this report); 4) the 1992 household-based NHIS Youth Risk Behavior Survey (NHIS-YRBS) of 12- through 21-year-olds; and 5) the national school-based Youth Risk Behavior Survey (YRBS), which was conducted in 1991, 1993, and 1995 among students in grades 9–12. The methodologies of these surveys are summarized in Table 5-1 and are described in detail in Appendices A and B of this chapter.

When adult data from the NHIS, BRFSS, and NHANES III are presented for comparison, they are shown from the most nearly contemporaneous survey years. Otherwise, the most recent data are presented. For determining trends, BRFSS data are restricted to those states that collected physical activity information each year.

Responses to questions included in the surveys were compiled (see Appendix B) into categories approximately corresponding to the *Healthy People 2000* physical activity objectives. These objectives are based on the health-related physical activity dimensions of caloric expenditure, aerobic intensity, flexibility, and muscle strength (Caspersen 1994). Thus the “regular, sustained physical activity” category used here pertains to total caloric expenditure and includes a summation of activities of any intensity, whereas the “regular, vigorous” category pertains to aerobic intensity and therefore includes only activities of vigorous intensity. Because some activities (e.g., vigorous activity of 30 minutes duration) fall into both of these categories, the categories are not mutually exclusive. Adding together the proportion of people in each category thus yields an